

PATENTS  
107044-0007

*Please do not enter*  
*11-15-04*

**IN THE CLAIMS:**

1. (Currently Amended) A membrane electrode assembly for use in a direct oxidation fuel cell comprising:

a barrier layer of material that is substantially protonically non-conductive and which is substantially impermeable to water and carbonaceous fuel;

first and second protonically conductive membranes disposed, respectively, on opposite surfaces of said barrier layer;

selected sites comprising openings providing passages through [[in]] said barrier layer enabling protonically conductive contact through said passages between said first and second membranes;

first and second catalysts disposed, respectively, on the surfaces of said membranes which are not in contact with said barrier layer; and

first and second diffusion material layers disposed, respectively, on the surfaces of said catalysts which are not in contact with said membranes.

1 2. (Currently Amended) The assembly as in claim 1 wherein said barrier layer comprises a microporous material.

1 3. (Currently Amended) The assembly as in claim 1 wherein said barrier layer comprises a polyester microfilm with microperforations.

1 4. (Currently Amended) The assembly as in claim 1 wherein said barrier layer comprises a polyimide film with microperforations.

1 5. (Original) The assembly as in claim 1 wherein said assembly is used in a direct methanol fuel cell.